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Effectiveness of Four-Factor Psychotherapy in Decreasing Distress of Women with Breast Cancer

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Abstract

The research purpose is to assess the effectiveness of four-factor psychotherapy in decrease of the distress amongst women suffering from breast cancer. Sample of 25 patients was drawn and assigned to the experimental and control groups. The experimental group underwent 12 sessions of four-factor psychotherapy with an emphasis on therapeutic relationship, hope enhancing, awareness promotion and behavior regulation. The distress level of both groups was assessed by Vaziri Subjective Units of Distress (VSUD). Covariance analysis indicated that four-factor psychotherapy has been effective in the decrease of distress among the sufferers. A one-month follow up indicated this reduced level of distress in the mothers remains sustained until follow-up. Overall, it can be concluded that four-factor psychotherapy can significantly decrease the distress among these patients.

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1. Introduction

Cancer and specifically breast cancer is regarded amongst the most severe and major diseases of the contem-

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poraryera. The mentioned disease with its physical, mental and social aspects stands amongst growing common problems of the societies. Distress is one of the adverse and unavoidable consequences of breast cancer and can be defined as psychological and mental suffering (Morris, 2002). Lenz, Suppe, Gift, Pugh, & Milligan (1995) have defined distress as one of the four aspects of the disease and it's the suffering that is demonstrated by the patient. Distress is mental or physical suffering that is reported by the patients with regard to their perception of the disease. It can involve illness-related thoughts, the amount of attention to the illness, individual's mental state or outlook with regard to the illness and the occurrence setting (Hsiao, 2008). Psychologists have always sought for methods of decreasing the distress or its related components. The goal of these psychologists is deliberate and aware application of clinical methods and interpersonal stances derived from the common psychological principles and its purpose is to help individuals to change behaviors, cognitions, emotions and other personal characteristics, in a way that participants consider them as desirable in the therapy. According to a study by Kashani (1998), the effective factors on various psychological approaches can be summarized in four factors of establishing the therapeutic relationship, creating hope and expectancy, increasing awareness and behavior regulation. These four factors establish a common systematic process in psychotherapy which is not related to a specific approach. In this process, the scene is set through establishing a therapeutic relationship, employing learning principles and behavior regulation that will lead to hope enhancing and awareness promotion. The process of the treatment and therapy through these four factors indicate that, an individual is provided with an opportunity to become aware of his/her feelings and behaviors before which s/he wasn't aware of. The patient gains insight to the present condition and fosters her/his awareness of feelings and implications which is part of the treatment. In this process, hope enhancement and expecting the improvement is a significant part of the treatment that enhances an individual's mood, facilitates the changes and provides a realm for improvement through regulating his/her responses. Trusting the psychotherapist and the treatment has always been important in a variety of therapies. Roberts, Kewman, Mercier and Hovell (1993) have indicated that one-third of successful psychotherapies are related to this belief held by psychotherapists and patients that the therapy is effective. The therapeutic relationship is amongst the strongest therapeutic factors. Research shows that 12 percent of the main reasons of improvement are related to therapeutic relationship (Horvath and Bedi, 2002). Bergin and Lambert assert that (1978) the therapeutic relationship has the second place among the most significant factors of psychotherapy. We expand three domains of behavior, emotion and thought. Along with the new information, it is necessary that the patient or client realistically practices efficient behavior skills, emotion regulation and information processing. Mann, De Ridder, Fujita (2013) research found out that health behavior regulation is effective in increasing individuals' psychosocial functioning in setting goals. Wills & O'Carroll Bantum (2012) concluded that high social support and group intervention contributes to progress-oriented and self-regulating behaviors and results in long-term effects of behavior alteration (Stadler, Oettingen, Gollwitzer, 2010). Reid, Trout & Schartz (2005) have demonstrated significant research evidence in the role of behavior self-regulating intervention in the decrease of non-adaptive behaviors and increase of positive behaviors. Awareness increasing is also one of the main processes of the behavior change. Awareness enhancement and understanding the diverse paths ahead result in hope of treatment. Research results indicate that increasing the cognition is effective in decrease of physical symptoms and increase of social functioning of patients suffering from cancer (Lotfi Kashani, 2003). Moreover, Heinrichs et al (2012) found out that training and awareness enhancement increase the couples' communication skills and decrease of distress. Beatty et al (2010), contend that awareness enhancement leads to the decrease of depression and distress among the cancer sufferers. Vaziri and Kashani in their book titled "art of psychotherapy" (in press) assert that thoughts and feelings are important and effective components in counseling and psychotherapy. However, clients are required to show behavioral and performance aspects, as well. Clients can spend a long time to gain insight and understanding of their vague feelings. However, sooner or later, they are required to participate in an appropriate program to explore their thoughts and feelings and adapt them to real life situations. It appears that if the process of helping focuses on the individual's performance, s/he will have more chance to change her/his feelings and thoughts. The present research purpose is to assess the effectiveness of four-factor psychotherapy in decreasing distress of women suffering from breast cancer.

2. Method

This quasi-experimental research used pretest-post-test and control group design. The statistical population included all the female patients diagnosed with breast cancer hospitalized in Zanjan Medical Science University and under the support of Mehraneh charity, out of which a sample of 25 patients was selected through the convenience

sampling. The age range was between 20 and 55 years old and the educational level of the patients was the junior high school certificate. The sample entered the research subsequent to being informed of the research method, its goals and deriving patient satisfaction. The groups were divided into two 13(experimental) and 12(control) groups. The experimental group underwent 12 sessions of four-factor psychotherapy with an emphasis on therapeutic relationship, creating hope and expectancy, increasing awareness and behavior regulation. The distress level of both groups was assessed by Vaziri Subjective Units of Distress (VSUD) prior to and subsequent to the treatment.

Vaziri Subjective Units of Distress: is a self-assessment scale by which the mental distress is rated. This scale rates the individuals by 6 items from zero (completely false) to 4 (completely true). Vaziri Subjective Units of Distress assesses the individuals' perception of the extent of being nervous, hopeless, restless, in mood, and irritable, matters' worthlessness, distress and confusion. The reliability coefficient of this scale among a group of 207 of cancer patients has been reported to be .86 using Cronbach alpha and .91 using a two-week test-retest. The strong correlation of K10 and GHQ28 indicated the validity of the questionnaire (Vaziri, 2014). In this research eight 90-minute sessions was conducted focusing on each of the four factors. Covariance analysis (ANCOVA) using SPSS software version 18 was used to analyze the data.

3. Results

In table 1, the descriptive components of age, education, length of marriage and the distress level of the subjects have been separately presented.

Table 1. The demographic and descriptive properties of the variables in the pre-test and post-test

		n	M	variable	control		experimental		
Age	Experimental	13	47.32		M	SD	M	SD	
	Control	12	48.01	distress	Pre test	17.85	1.214	18.17	1.193
Edu.	Junior high school	16			Post test	16.31	1.316	18.42	1.379
	High school and diploma	8			Follow up	15.769	1.640		
	master	1							

The pre assumptions required for the covariance analysis were investigated in order to evaluate the effectiveness of four-factor therapy in the decrease of distress among the female patients suffering from breast cancer. Firstly, the interaction between the pretest scores (auxiliary variable) and post-test scores of distress was investigated. The F value is not significant which supports the homogeneity of the regression slope. The significance level is higher than 0.05, in the analysis of the variance equality using Levene's test. The regression diagram analysis confirms the linear relationship between the auxiliary variable and dependent variable. The data has not questioned the assumption of equality of variances error ($P=.671$, $df= 1$ and 23 , $F=.0185$). As a result, conditions are established for covariance analysis. Results of covariance analysis are presented in Table 2.

Table 2. Summary of the ANCOVA for investigating the groups effects on the variable of distress

Source	SS	df	MS	F	Sig.	Partial Eta
Pre-test	8.443	1	8.443	5.587	.027	.203
group	23.226	1	23.226	15.371	.001	.411
error	33.243	22	1.511			

As observed in the table above, the F ratio is lower than 0.05 in the distress scores ($F= 15.371$, $P=.001$ and Partial Eta= 0.411). With regard to the obtained results, it can be concluded that four-factor therapy was effective in decrease of distress. A one-month follow-up study was conducted to test the reliability of the therapy effects on the subjects' distress. Table 3 demonstrates a summary of this comparison. As observed in table 3, the possibility of the confirmation of the null hypothesis for the experimental and control groups in the post-test is higher than .05. Put differently, no significant change is observed in terms of the interaction between the subjects in the post-test subsequent to the balance of pre-test scores ($F=1.174$, $P>.05$). With regard to the obtained results, it can be concluded that the distress scores of the experimental group didn't show any significant difference in the follow-up study and the changes of four-factor therapy was effective in the follow-up stage.

Table 3. Results of the ANOVA on the score change of distress in the control group and in the follow-up study

	SS	df	MS	F	Sig.
Between Groups	2.216	1	2.616	1.174	.290
Within Groups	51.224	23	2.226		
total	53.840	24			

4. Discussion and conclusion

The research purpose is to assess the effectiveness of four-factor psychotherapy in decrease of the distress amongst women suffering from breast cancer. Therefore, a sample of 25 patients diagnosed with breast cancer was drawn and assigned to the experimental and control groups. Covariance analysis indicated that four-factor psychotherapy has been effective in the decrease of distress among the sufferers. A one-month follow up indicated no significant change in the experimental group. Overall, it can be concluded that four-factor psychotherapy can significantly decrease the distress among these patients. Psychotherapists have shown the effectiveness of the kind of therapeutic relationship, awareness enhancement, hope increasing, treatment expectation and behavior regulation in the improvement of psychological condition and decrease of psychological problems (Horvath & Bedi, 2002; Bergin & Lambert, 1978; Roberts et al, 1993; Mann et al, 2013; Wills et al, 2012; Stadler et al, 2010; Reid et al, 2005; Beatty et al, 2010). All the cancer patients experience some levels of cancer-related and treatment- related distress in all the stages of disease. Distress is a state of emotional condition that has symptoms of depression (e.g., loss of interest, sadness and hopelessness) and anxiety (e.g., fatigue and stress) (Mirowsky, and Ross, 2002). Emotional distress may exert negative effect on individuals' social performance and daily lives which results in more complexity of their problems. Distress is an unpleasant multifactorial emotional experience with psychological (cognitive, behavioral, emotional), social, or spiritual nature which may interfere with physical symptoms and the process of treatment and affect the ability to cope with cancer. Distress develops along a continuum and its range spreads from natural and common feelings of vulnerability, sadness, and fears to problems that can be insurmountable, such as depression, anxiety, panic, social isolation, and existential and spiritual crisis. It seems that the therapeutic relationship, trusting the therapist and treatment, belief in the effectiveness of the therapy along with performance regulation, awareness enhancement and the variety of the paths ahead in behavioral, emotional and thinking realms result in higher hopes for treatment, psychological improvement and decrease of distress among the patients suffering from breast cancer.

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